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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional)	
07250029aa	

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Application Number	Filed
10/808,328	3/25/2004
First Named Inventor	
Uejima	
Art Unit	**Examiner**
2853	Martin

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal.

Submitted today 13:27:23
EFS ID 1343198

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

☐ applicant/inventor.

☐ assignee of record of the entire interest.
See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed.
(Form PTO/SB/96)

☐ attorney or agent of record.
Registration number _____

☑ attorney or agent acting under 37 CFR 1.34.
Registration number if acting under 37 CFR 1.34 **32,635**

Signature

Michael E. Whitham
Typed or printed name

703-787-9400
Telephone number

11/30/06
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☐ *Total of _____ forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re patent application of

A. Uejima Confirmation No. 5421

Serial No. 10/808,328 Group Art Unit: No. 2853

Filed March 25, 2004 Examiner Martin, Laura E.

For METHOD FOR PREPARING HARD COPIES

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ATTACHMENT TO PRE-APPEAL BRIEF REQUEST FOR REVIEW

Sir:

This Pre-Appeal Brief Request for Review is being concurrently filed with a Notice of Appeal. A check is attached to satisfy the fees for the Notice of Appeal. If any additional fees are required to satisfy the fees due for the Notice of Appeal or to gain entry and consideration of this Pre-Appeal Brief Request for Review, the Commissioner is authorized to charge Attorney's Deposit Account 50-2041 (Whitham, Curtis, Christofferson & Cook, P.C.).

Applicants filed an amendment under 37 C.F.R. § 1.116 on October 31, 2006, canceling dependent claims 2 and incorporating all of its limitations, verbatim, into base claim 1. The amendment therefore simplified issues for appeal and did not add any new issues. The Advisory Action mailed November 20, 2006 indicates, at page 1, that the amendment was not entered. Applicants respectfully request entry of the amendment, noting that the Advisory Action addresses the limitations of dependent claim 2 in maintaining the Final Office Action rejection of base claim 1 and, therefore the amendment places issues into better form for appeal.

The Invention

The disclosed and claimed invention includes forming a transparent coating on a hard copy recorded image by spraying clear droplets from a hard-copy recording head toward the recorded image, and curing the droplets in flight, prior to their hitting the surface of the recorded image, to coat the recorded image with a layer of cured

droplets. The invention is described as solving problems in prior art coating methods that deposit a layer of liquid resin onto an ink layer and then irradiate and cure the deposited resin. *See*, Specification at page 3, lines 2-10. As shown in Applicants' "prior art" FIG. 5, a significant problem in this prior art depositing of a liquid resin, and subsequently curing of the deposited liquid, is that the coating (labeled as 16') has a uniform thickness, but that the image ink (14') often has an irregular thickness. *See*, Specification, at page 13, line 22, through page 14, line 2. This causes the coating (16') to have a corresponding irregular pattern. *Id.*

A further described aspect of the invention adjusts the in-flight curing of the droplets according to the image being coated. As shown in FIG. 3, with the adjustment feature the claimed invention further provides coating, as shown in FIG. 3, having thicknesses and textures, as shown by 16a and 16b, that are associated with the recorded image being coated.

Errors and Omissions

The Office Action has failed to make out a *prima facie* case of obviousness under 35 U.S.C. §103(a) of Applicants' base claim 1, or its now-canceled dependent claim 2. Specifically, the Examiner rejects base claim 1 under 35 U.S.C. §103(a) as being unpatentable over JP 20001411708 ("Matsunaga"), in view of JP 02307731 ("Higashiyama"). Final Office Action, at page 2. The Office Action rejects dependent claim 2, now incorporated into base claim 1, as being unpatentable over Matsunaga, in view of Higashiyama, in further view of U.S. Patent No. 6,783,227 ("Suzuki"). *See* Final Office Action, at pages 3, and Advisory Action, at page 2.

Applicants respectfully submit that the collected teachings of Matsunaga, Higashiyama and Suzuki lack structure and/or acts capable of performing, in any arrangement, functions within the broadest reasonable meaning of the claim 1 curing droplets in flight, much less anything within the claim 1 recitation of coating a recorded image by spraying liquid droplets, and irradiating and curing the droplets in flight. Therefore, the combination of Matsunaga, Higashiyama and Suzuki cannot establish *prima facie* obviousness of claim 1, as examined. Further, the combination of Matsunaga, Higashiyama and Suzuki lack structure and/or acts capable of coating a recorded image by curing droplets in flight with an irradiation adjusted in accordance with a recorded image. Therefore, the combination of Matsunaga,

Higashiyama and Suzuki cannot establish *prima facie* obviousness of claim 1, as amended to incorporate the original claim 2.

Matsunaga is described in the Background of Applicants' Specification, as an example of prior art and related problems to which Applicants' claimed invention is directed to solve. More specifically, Matsunaga describes an inkjet recording method of depositing liquid ink on a medium, depositing a liquid coating onto the ink, and then irradiating the deposited ink and liquid coating with a UV light. *See* Specification at page 2, lines 3-10. The irregular coating 16' that results is shown in Applicants' "Prior Art" FIG. 5.

Matsunaga therefore lacks the following elements and included features of Applicants' claim 1, as examined: coating an image by spraying droplets and *curing the droplets in flight*, and lacks the following element of Applicants' claim 1, as amended: said curing step ... [being] performed on said droplets [being] adjusted in accordance said the *image as recorded on said recording medium*." Claim 1, as amended, at lines 8-10.

Higashiyama, which the Office Action relies on as a secondary reference, describes a *molding apparatus*, for building three-dimensional objects on a molding stage, that ejects a photo-curing resin from an inkjet head, deposits the resin onto the molding stage to form a liquid layer, and then cures the deposited layer of liquid resin to form a slice of a three-dimensional form. The ejecting and curing are repeated until the three-dimensional object is complete. Higashiyama discloses *partially* curing the droplets in flight, by a diffuse light source 33. *Id*, at Abstract. Higashiyama describes the *partial* curing as reducing a running of the deposited layer of droplets, between the time of their deposition and the time they are "perfectly cured and fixed" on the surface by a "light source 32." Higashiyama does not disclose *actually curing* droplets in flight. Further, nowhere in Higashiyama is there any disclosure, teaching or suggestion found that is reasonably arguable as being toward the "curing step ... [being] performed on said droplets [being] adjusted in accordance said the *image as recorded on said recording medium*." Claim 1, as amended, at lines 8-10.

Applicants therefore respectfully submit that Higashiyama adds *nothing* to the disclosure of Matsunaga that is toward Applicants' claim 1.

Applicants further submit that Suzuki adds *nothing* to the combined disclosure of Matsunaga and Higashiyama that can be reasonably interpreted as, or argued as, being toward Applicants' claim 1.

Applicants submit that the Office Action and the Advisory Action substantially misinterpret Suzuki, and fail to consider Suzuki's teachings in their entirety – as these both lack elements of Applicants' claim 1 and teach away from Applicants' claimed invention.

Suzuki describes a system that deposits a liquid mixture of an ink and a UV curable resin onto a medium, and then irradiates and cures that deposited liquid mixture. Suzuki in fact discloses changing the intensity and wavelength of light curing the deposited ink-resin mixture, to conform "to the *material* of the recording medium and the *type of ultraviolet cure ink*." (emphasis added) Suzuki, at column 9, lines 27-29.

The Final Office Action relies on Suzuki as a teaching of "said curing step … [being] performed on said droplets [being] adjusted in accordance said the image as recorded on said recording medium." Final Office Action, at page 3.

The Suzuki reference does not support the Final Office Action's stated reliance on Suzuki's teachings. First, a "*material* of the recording medium," Suzuki at column 9, line 29, is not even arguable as being within the broadest reasonable meaning of "image." Such an argument would do violence to the meaning of "image." Applicants submit that what the inkjet printer prints on that paper may be an "image." Second, a "*type of ultraviolet cure ink,*" Suzuki at column 9, line 29, is *not* reasonably arguable as being within the broadest *reasonable* meaning of "image." Such an argument would do further violence to the meaning of "image." What the inkjet printer prints with that ink, after being fixed on the paper, may be an "image."

Further, Suzuki teaches nothing of a curing "[being] performed on said droplets [being] adjusted in accordance said the *image as recorded on said recording medium*." Claim 1, as amended, at lines 8-10.

Further, the Final Office Action and the Advisory Action make an error and omission in failing to consider the Suzuki reference in its entirety. *See* MPEP § 2141.02(VI) ("A prior art reference must be considered … as a whole, including portions that would lead away from the claimed invention")

Suzuki, read as a whole, teaches directly away from Applicants' invention of curing droplets in flight. Any argument to the contrary is necessarily without support in the Suzuki reference. Suzuki repeatedly and emphatically teaches that the droplets must not be cured, to any extent, in their flight from the inkjet head to the recording medium and, in fact, emphasizes that light-blocking structures must be used to prevent any such curing. *See, e.g.*, Suzuki at column 2, lines 5-8; column 3, lines 2-4; column 4, lines 45-48; column 10, lines 8-13; column 11, lines 15-19; column 12, lines 16-21 and lines 48-58; column 15, lines 50-55; and column 15, lines 32-34 (summarizing the "Effects of the Invention" as "*decreas[ing] the probability* that *ink particles* emitted from the head *are exposed to active ray before hitting the recording medium.*")

Applicants therefore submit that viewing Suzuki in combination with Matsunaga and Higashiyama establishes that their collected teachings lack the curing element of base claim 1, as examined and as amended, and that the combination at best suggests away from claim 1 and, therefore, cannot support *prima facie* obviousness of the claim under 35 U.S.C. § 103(a).

Conclusion

The references relied upon, taken singly or in combination, fail to show or suggest the claimed invention recited in base claims 1, or any of its dependent claims 3, 4, and 6-9 and, therefore, these claims should be allowed and the application passed to issue.

In view of the above, it is requested that the position of the Examiner be reviewed, that the rejections be withdrawn, and that the application be passed to issue.

Respectfully submitted,

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